

Use your favorite software to browse the contents of the **histday.nc** file

<http://ferret.pmel.noaa.gov/Ferret/documentation/users-guide/index-1/index>

## ferret

<b>yes? use histday.nc</b>	open histday.nc file
<b>yes? sh data</b>	show the data in this file <b>I=longitude</b> <b>J=latitude</b> <b>K=levels of the model</b> <b>L=number of time steps</b>
<b>yes? shade/k=39 temp</b>	2D plot of temperature at the first level of the model
<b>yes? go land</b>	to plot continents on the figure
<b>yes? plot/j=19/i=20 temp</b>	plot a temperature profile over the point j=19,i=20
<b>yes? list/j=19/i=20 temp</b>	list numerical values of temp
<b>yes? shade temp[k=@ave];go land</b>	2D plot of mean temperature over altitude
<b>yes? set view upper</b> <b>yes? shade/l=1 tsol</b>	plots the figure in the upper part of the page
<b>yes? set view lower</b>	
<b>yes? set view ul</b>	plots the figure in the upper-left corner
<b>yes? set view ur</b>	plots the figure in the upper-right corner
<b>yes? set view ll</b>	
<b>yes? set view lr</b>	
<b>yes? frame/file=my_figure.gif</b>	to save last plots in a gif file
<b>yes? cancel viewport</b>	to go back to a "one plot on the page" version
<b>yes? plot/vs/line/l=1/k=39 temp,pres/100.</b>	plot temperature versus pressure
<b>yes? plot/l=1 tsol[i=@ave];go land</b>	plot longitudinal average of temperature
<b>yes? plot/j=19/i=1/k=39/vlimits=298,5:302 temp</b>	plot temperature of first level, with vertical limits 298,5-301,2
<b>yes? plot/j=19/i=1/o tsol</b>	plot "over" tsol
<b>yes? quit</b>	

This session produces a **ferret.jnl** file you can rename, modify and re-use later (with go ferret.jnl).

## Ferret tutorial:

ferret

yes? go tutorial

Same commands for Grads ;  
 (the ↵ symbol means that you need to hit return of course !)  
 To erase the figure, it is necessary to use « clear » between two commands (or « c »)

## grads

sdfopen histday.nc	
q file x = longitude y = latitude z = model pressure levels t = time	
set z 1 ↵ d temp ↵	
set mpdraw on	Or « set mpdraw off »
set x 20 ↵ set y 19 ↵ set z 1 39 ↵ d temp	
set gxout print ↵ d temp	
set lon -180 180 ↵ set lat -90 90 ↵ set z 1 ↵ d ave(temp,z=1,z=39)	
set vpage 0 6 0 8.5 ↵ set parea 0.5 6 4.5 8.5 ↵ set gxout shaded ↵ d tsol	See <a href="#">this page</a> for more info
set parea 0.5 6 0 4	Coordinates must be adjusted by hand
gxprint figure.pdf	
	Impossible using Grads unfortunately
d ave(tsol,lon=-180,lon=180)	
set lon -180 180 ↵ set y 19 ↵ set z 1 ↵ set vrangle 298.5 301.2 ↵ d temp	
d tsol	Default behavior if « clear » is not used
quit	

To have a white background and a clean page, start your session with :  
 set display color white  
 set grads off

More commands :  
<http://cola.gmu.edu/grads/gadoc/users.html>